

OIPE

## RAW SEQUENCE LISTING

DATE: 01/10/2002

PATENT APPLICATION: US/10/024,579

TIME: 15:54:45

Input Set : A:\LEX-0274-USA SEQLIST.txt

Output Set: N:\CRF3\01102002\J024579.raw

ENTERED

4 <110> APPLICANT: Friddle, Carl Johan  
 5       Gerhardt, Brenda  
 6       Hilbun, Erin  
 7       Turner, C. Alexander Jr.  
 9 <120> TITLE OF INVENTION: Novel Human Ion Channel-Related Proteins  
 10       and Polynucleotides Encoding the Same  
 13 <130> FILE REFERENCE: LEX-0274-USA  
 C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/024,579  
 C--> 15 <141> CURRENT FILING DATE: 2001-12-18  
 15 <150> PRIOR APPLICATION NUMBER: US 60/258,595  
 16 <151> PRIOR FILING DATE: 2000-12-28  
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 24 <212> TYPE: DNA  
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 29 tctacgataa agcagtttcc tgcttctcgt ttggcacgca tgtagatgg cagagaccaa 120  
 30 gaattcaaga tgggtgggtg ccagattttt gtagacagag atggtgattt gtttagtttc 180  
 31 atcttagatt ttttgagaac tcaccagctt ttattaccca ctgaattttc agactatctt 240  
 32 aggcctcaga gagaggctct tttctatgaa ctctgttctc tagttgatct cttaaaccga 300  
 33 tacctgctac agccaagacc tgctcttggt gaggtacatt tcctaagccg gaacactcaa 360  
 34 gcttttttca ggggtggttg ctcttgacgc aaaacaattg agatgctaac agggaggatt 420  
 35 acagtgttta cagaacaacc ttacgcgcgc acctggaatg gtaacttttt ccctcctcag 480  
 36 atgaccttac ttccactgcc tccacaaaga ccttcttacc atgacctggt tttccagtgt 540  
 37 ggttctgaca gcactactga taaccaaact ggagtcaggt attttgtact ttgcagtatt 600  
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 42 <212> TYPE: PRT  
 43 <213> ORGANISM: homo sapiens  
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 48 Thr Thr Arg Phe Ser Thr Ile Lys Gln Phe Pro Ala Ser Arg Leu Ala  
 49 20 25 30  
 50 Arg Met Leu Asp Gly Arg Asp Gln Glu Phe Lys Met Val Gly Gly Gln  
 51 35 40 45  
 52 Ile Phe Val Asp Arg Asp Gly Asp Leu Phe Ser Phe Ile Leu Asp Phe  
 53 50 55 60  
 54 Leu Arg Thr His Gln Leu Leu Leu Pro Thr Glu Phe Ser Asp Tyr Leu  
 55 65 70 75 80  
 56 Arg Leu Gln Arg Glu Ala Leu Phe Tyr Glu Leu Arg Ser Leu Val Asp  
 57 85 90 95  
 58 Leu Leu Asn Pro Tyr Leu Leu Gln Pro Arg Pro Ala Leu Val Glu Val

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60 His Phe Leu Ser Arg Asn Thr Gln Ala Phe Phe Arg Val Phe Gly Ser
61          115          120          125
62 Cys Ser Lys Thr Ile Glu Met Leu Thr Gly Arg Ile Thr Val Phe Thr
63          130          135          140
64 Glu Gln Pro Ser Ala Pro Thr Trp Asn Gly Asn Phe Phe Pro Pro Gln
65 145          150          155          160
66 Met Thr Leu Leu Pro Leu Pro Pro Gln Arg Pro Ser Tyr His Asp Leu
67          165          170          175
68 Val Phe Gln Cys Gly Ser Asp Ser Thr Thr Asp Asn Gln Thr Gly Val
69          180          185          190
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83 ttgctttttc attttgtata ctgcaagttc ccaggcaact cgaatttgca aacacagcca 120
84 tggaacact atttaccta cagtagtttc ctgggaatct aagtctggtt ttgtttattc 180
85 ttccctcccc tccactgcat aatcatgtat aactagcaac atttatggtt ataggttgat 240
86 ttctaagtg tggctgatg tagcctctag ttgaaagtga gggaagaatg agtagtcagg 300
87 aactggtcac ttgaaatgtg ggagggaaga tattcacgac aagggttttct acgataaagc 360
88 agtttctctg ttctcgtttg gcacgcatgt tagatggcag agaccaagaa ttcaagatgg 420
89 ttggtggcca gatttttcta gacagagatg gtgatttgtt tagtttcatc ttagattttt 480
90 tgagaactca ccagctttta ttaccactg aattttcaga ctatcttagg cttcagagag 540
91 aggcctcttt ctatgaactt cgttctctag ttgatctctt aaaccatac ctgctacagc 600
92 caagacctgc tcttgtggag gtacatttcc taagccggaa cactcaagct tttttcaggg 660
93 tgtttggtc ttgcagcaaa acaattgaga tgctaacagg gaggattaca gtgtttacag 720
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96 ctactgataa ccaactgga gtcaggtatt ttgtactttg cagtatttct cttgtatacc 900
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98 tgattattca aaataatggt ttggggtaac cagtggagtt gggtagaatg accaaataat 1020
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100 gaataaatga agactgcca gaaaaaactg agactatgga cattcaaatac atgggagaaa 1140
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102 ttttaagaga ttgtttcagt ggtaaacata aaggct 1236
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111 tctgacgccg aagacgactt tctggagccg gccacgccga cgccacgca ggcggggcac 120
112 gcgctgcccc tgetgccaca ggagtttctt gaggttggtc cccttaacat cggaggggct 180

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113 cacttcacta cacgcctgtc cacactgcgg tgctacgaag acaccatggt ggcagccatg 240
114 ttcagtgggc ggcactacat cccacaggac tccgagggcc ggtacttcat cgaccgagat 300
115 ggcacacact ttgggtatgt ctctccctct acaatcaact ttgtagtctt agcaggtgat 360
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121 &lt;213&gt; ORGANISM: homo sapiens

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125 1 5 10 15

126 Ala Met Ser Ser Ser Asp Ala Glu Asp Asp Phe Leu Glu Pro Ala Thr

127 20 25 30

128 Pro Thr Ala Thr Gln Ala Gly His Ala Leu Pro Leu Leu Pro Gln Glu

129 35 40 45

130 Phe Pro Glu Val Val Pro Leu Asn Ile Gly Gly Ala His Phe Thr Thr

131 50 55 60

132 Arg Leu Ser Thr Leu Arg Cys Tyr Glu Asp Thr Met Leu Ala Ala Met

133 65 70 75 80

134 Phe Ser Gly Arg His Tyr Ile Pro Thr Asp Ser Glu Gly Arg Tyr Phe

135 85 90 95

136 Ile Asp Arg Asp Gly Thr His Phe Gly Tyr Val Ser Pro Ser Thr Ile

137 100 105 110

138 Asn Phe Val Val Leu Ala Gly Asp

139 115 120

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143 &lt;211&gt; LENGTH: 321

144 &lt;212&gt; TYPE: DNA

145 &lt;213&gt; ORGANISM: homo sapiens

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149 ttccccgttg cctgcctgag agccctggtg atttctttcc agtttcctga ggttggtccc 120

150 cttaacatcg gaggggctca cttcactaca cgctgtcca cactgcggtg ctacgaagac 180

151 accatggttg catccatggt cagtgggcgg cactacatcc ccacggactc cgagggccgg 240

152 tacttcatcg accgagatgg cacacacttt gggtatgtct ctccctctac aatcaacttt 300

153 gtagtcctag caggtgatta g 321

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156 &lt;211&gt; LENGTH: 106

157 &lt;212&gt; TYPE: PRT

158 &lt;213&gt; ORGANISM: homo sapiens

160 &lt;400&gt; SEQUENCE: 7

161 Met Asn Gly Val Ala Pro Ile Arg Pro Gln Gly Leu Lys Met Glu Gln

162 1 5 10 15

163 Pro Gln Leu Ser Phe Pro Val Ala Cys Leu Arg Ala Leu Val Ile Ser

164 20 25 30

165 Phe Gln Phe Pro Glu Val Val Pro Leu Asn Ile Gly Gly Ala His Phe

166 35 40 45

167 Thr Thr Arg Leu Ser Thr Leu Arg Cys Tyr Glu Asp Thr Met Leu Ala

168 50 55 60

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170 65                      70                      75                      80
171 Tyr Phe Ile Asp Arg Asp Gly Thr His Phe Gly Tyr Val Ser Pro Ser
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178 <211> LENGTH: 680
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180 <213> ORGANISM: homo sapiens
182 <400> SEQUENCE: 8
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185 ctgctcggcg gtagggagtg cccggggccg ccgycctccg ccgcccgaag ccgcgcccac 180
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187 acggtgccat gtccagctct gacgccgaag acgactttct ggagccggcc acgccgacgg 300
188 ccacgcaggc ggggcacgcg ctgcccctgc tgccacagga gtttctctag gttgttcccc 360
189 ttaacatcgg aggggctcac ttactacac gcctgtccac actgcggtgc tacgaagaca 420
190 ccatgtttgc agccatgttc agtgggcggc actacatccc caccgactcc gagggccggt 480
191 acttcatcga ccgagatggc acacactttg ggtatgtctc tccctctaca atcaactttg 540
192 tagtcctagc aggtgattag cataggcttg agtatgggac cttgatattc tccatagtac 600
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204 gctgcccagg gcatccccct gccagcccag ctcaccaagt ccaatgcacc tgtgcacatc 180
205 gatgtgggcg gccacatgta caccagcagc ctggccacgc tcaccaagta ccctgactcc 240
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207 tatttcattg accgggatgg ggagattttc cgctacgtcc tgagcttcct gcggacgtcc 360
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209 tatcagctcc agcccatggg gcgcgagctg gagcgtggc agcaggagca ggagcagcgg 480
210 cgccgcagcc gggcctgtga ctgcctggg gtgcgcgtca cgcccgactt gggcgagcgg 540
211 atcgcaactc gcggcgagaa ggccctcctc gaggaggtct tccccgagac cggagacgtc 600
212 atgtgcaact ccgtcaacgc cggctggaac caggacccca cgcacgtcat ccgcttcccg 660
213 ctcaatggct actgcggct caactcggta caggtcctgg agcggctgtt ccagaggggt 720
214 ttcagcgtgg ctgcgtcctg tggggcggt gtggactcct ccagttcag cgagtatgtg 780
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220 <212> TYPE: PRT
221 <213> ORGANISM: homo sapiens
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Output Set: N:\CRF3\01102002\J024579.raw

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226 Gly Ser Thr Gly Thr Ala Glu Gly Gly Asn Met Ser Arg Leu Ser Leu
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229 35 40 45
230 Ala Gln Leu Thr Lys Ser Asn Ala Pro Val His Ile Asp Val Gly Gly
231 50 55 60
232 His Met Tyr Thr Ser Ser Leu Ala Thr Leu Thr Lys Tyr Pro Asp Ser
233 65 70 75 80
234 Arg Ile Ser Arg Leu Phe Asn Gly Thr Glu Pro Ile Val Leu Asp Ser
235 85 90 95
236 Leu Lys Gln His Tyr Phe Ile Asp Arg Asp Gly Glu Ile Phe Arg Tyr
237 100 105 110
238 Val Leu Ser Phe Leu Arg Thr Ser Lys Leu Leu Leu Pro Asp Asp Phe
239 115 120 125
240 Lys Asp Phe Ser Leu Leu Tyr Glu Glu Ala Arg Tyr Tyr Gln Leu Gln
241 130 135 140
242 Pro Met Val Arg Glu Leu Glu Arg Trp Gln Gln Glu Gln Glu Arg
243 145 150 155 160
244 Arg Arg Ser Arg Ala Cys Asp Cys Leu Val Val Arg Val Thr Pro Asp
245 165 170 175
246 Leu Gly Glu Arg Ile Ala Leu Ser Gly Glu Lys Ala Leu Ile Glu Glu
247 180 185 190
248 Val Phe Pro Glu Thr Gly Asp Val Met Cys Asn Ser Val Asn Ala Gly
249 195 200 205
250 Trp Asn Gln Asp Pro Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr
251 210 215 220
252 Cys Arg Leu Asn Ser Val Gln Val Leu Glu Arg Leu Phe Gln Arg Gly
253 225 230 235 240
254 Phe Ser Val Ala Ala Ser Cys Gly Gly Gly Val Asp Ser Ser Gln Phe
255 245 250 255
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273 tatttcattg accgggatgg ggagattttc cgctacgtcc tgagcttcct gcggacgtcc 360
274 aagctgctgc ttccggatga cttaaggac ttcagtctgc tgtacgagga ggcgcgtac 420
275 tatcagctcc agcccatggt gcgcgagctg gacgcgtggc agcaggagca ggagcagcgg 480
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VERIFICATION SUMMARY

DATE: 01/10/2002

PATENT APPLICATION: US/10/024,579

TIME: 15:54:46

Input Set : A:\LEX-0274-USA SEQLIST.txt

Output Set: N:\CRF3\01102002\J024579.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date